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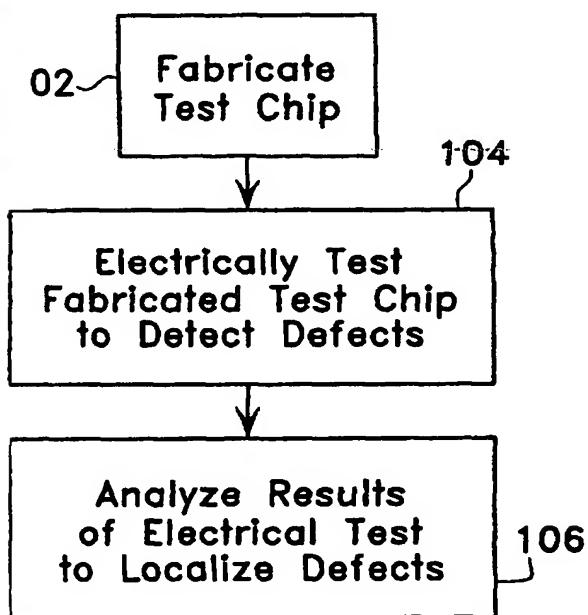
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(54) Title: FAST LOCALIZATION OF ELECTRICAL FAILURES ON AN INTEGRATED CIRCUIT SYSTEM AND METHOD



(57) Abstract: Fast localization of electrically measured defects of integrated circuits includes providing information for fabricating a test chip having test structures configured for parallel electrical testing. The test structures on the test chip are electrically tested employing a parallel electrical tester. The results of the electrical testing are analyzed to localize defects on the test chip.



*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/39698

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H01L 21/20, 21/44, 21/66; G01R 1/04, 19/00, 31/26, 31/28  
 US CL : 438/14, 17, 18, 19, 20; 324/158.1, 763, 765; 257/48

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
 U.S. : 438/14, 17, 18, 19, 20; 324/158.1, 763, 765; 257/48

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
 NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 NONE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,358,762 B1 (Kohno et al.) 19 March 2002 (19.03.2002), columns 1-14.	1, 5, 12, 16, 19, 29-32, 38
Y	US 4,912,052 (MIYOSHI et al.) 27 March 1990 (27.03.1990), Fig. 5, 7, 9.	27
Y	US 6,475,871 B1 (STINE et al.) 5 November 2002 (05.11.2002), columns 1-10.	1-58
Y	US 5,831,446 (SO et al.) 3 November 1998 (03.11.1998), column 1-8.	1
Y	US 6,291,254 B1 (CHOU et al.) 18 September 2001 (18.09.2001), columns 1-22.	2-6, 30, 31
Y	US 6,137,303 (DECKERT et al.) 24 October 2000 (24.10.2000), columns 1-14.	1-58
Y	US 6,313,652 B1 (MAENG) 6 November 2001 (06.11.2001), columns 1-18.	26-27

Further documents are listed in the continuation of Box C.

See patent family annex.

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"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"O" document referring to an oral disclosure, use, exhibition or other means		
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